

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:  
Rath et al.

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Filed: January 29, 2004

Serial No.: 10/767,040

Group Art Unit: 2161

Confirmation No.: 4827

Examiner: Kavita Padmanabhan

For: RELATIONAL TO HIERARCHICAL TREE DATA CONVERSION TECHNIQUE

MAIL STOP APPEAL BRIEF - PATENTS  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

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December 31, 2007  
Date

/Randol W. Read, Reg. No. 43,876/  
Randol W. Read

**REPLY BRIEF**

Dear Sir:

Applicants submit this Reply Brief to the Board of Patent Appeals and Interferences in response to Examiner's Answer mailed on October 29, 2007. While Applicants' maintain each of the arguments submitted in Applicants' previously submitted Appeal Brief, Applicants make the following further arguments in light of the Examiner's Answer.

## ARGUMENTS

### **CHAU DOES NOT ANTICIPATE CLAIMS 1-5 AND 7-20**

The Examiner continues to suggest that the *Chau* discloses a “method for managing structured data having one or more repeating fields” that includes a step of “receiving a hierarchical data structure containing the structured data wherein the structured data is annotation data related to an annotated data object and wherein at least two instances of a repeating field are contained in the structured data,” as recited by claim 1. Claims 10 and 15 recite similar limitations.

Specifically, the Examiner continues to state:

[*Chau* discloses] receiving a hierarchical data structure containing the structured data (*Chau*; par [0042] – the hierarchical structure of an XML document” - XML documents are hierarchical; Fig. 11, reference character 1100 - “Receive all XML document containing XML data” wherein the structured data is annotation data related to an annotated data object (*Chau* par [00441] par [00511- par [0052]; par [0195] - XML document is interpreted to be an annotated data object and the data contained therein is interpreted to be annotation data in that it is related to the XML documents.

*Examiner's Answer*, p. 3. As demonstrated in Applicants' appeal brief, however, this analysis equates the two distinct claimed elements of (1) “a hierarchical data structure containing structured data” and (2) “an annotated data object” as being the same thing. Namely, this analysis requires interpreting the “XML document” discussed in *Chau* as both “an annotated data object” and as the “annotation data ... related to the XML document.” However, as recited by the present claims, the “hierarchical data structure” and the “an annotated data object” are clearly distinct from one another. Accordingly, Applicants submit that “XML document” of *Chau* relied upon by the Examiner, does not disclose both the claimed “hierarchal data object” and the “annotated data object” of the present claims. For all the foregoing reasons, Applicants submit that claims 1, 10 and 15, along with the claims dependent therefrom, are patentable over *Chau*.

Additionally, the Examiner maintains the rejection of dependent claims 4 and 5, suggesting:

The examiner first notes that claim 1 recites in part, "one or more repeating fields" and "generating an ordinal value for each instance of the repeating fields", and claim 4 recites in part, "at least one repeating group of one or more fields" and "generating a group ordinal value for each instance of the repeating group of fields". Therefore, the examiner notes that claim 4 only requires that there be one repeating field and that there be one repeating group consisting of that one field.

Therefore, the repeating field is not only a field but also constitutes a group of one field. This analogy is similar to a data set containing one element. The element can be interpreted as both a single element and as a set of one element. Therefore, in the present application, the examiner asserts that the DXX SEQNO of Chau (Chau; par [0150]) constitutes both a field ordinal and a group ordinal, since the group is the one field.

*Examiner's Answer*, p. 10. While the Examiner is correct in that a data set containing one element "can be interpreted as both a single element and as a set of one element," this observation alone does not change the fact that the claim 4 recites a group ordinal value being generated for each instance of a repeating group, in addition to an ordinal value generated for each instance of a repeating field (whether part of a repeating group or not). The examiner recognizes this: "the examiner notes that claim 4 only requires that there be one repeating field and that there be one repeating group consisting of that one field." However, as claimed, claims 4 and 5 require both a field ordinal and a group ordinal, even when interpreted as suggested by the Examiner such that "there be one repeating field and that there be one repeating group consisting of that one field." At best the Examiner's example points out that the "field ordinal" and the "group ordinal" may have the same magnitude, e.g., a value of "1," when the repeating group includes a single instance of a repeating field. Nevertheless, the claim clearly requires two independent values, a field ordinal and a group ordinal, even though the ordinal values may in certain cases be the same magnitude. Thus, Applicants submit the Examiner's assertion "that the DXX SEQNO of Chau (Chau; par [0150]) constitutes both a field ordinal and a group ordinal, since the group is the one field," is clearly flawed. As disclosed in *Chau*, the "DXX\_SEQNO" provides a value added to a column in a relational table used to store elements parsed from an XML document.

this DXX\_SEQNO keeps track of the order of elements occurred for the path expression in each inserted XML documents. With DXX\_SEQNO, the

user can retrieve a list of the elements with "the same order as the original XML document using "ORDER BY DXX\_SEQNO" in SQL.

*Chau*, ¶ 150. That is, the "DXX\_SEQNO" is used to specify a relative ordering that instances of the same XML element occurred in a document. While this passage discloses that a "sequence number" may keep track of "the order of elements occurred for the path expression," it discloses nothing about a "group ordinal" number applied to multiple instances of a repeating group, in addition to a "field ordinal" applied to instances of a repeating field. For these reasons, Applicants submit that claims 4 and 5 are patentable over *Chau*. Further, claims 13 and 18 recite the same limitation recited by claim 4. Accordingly, for all the same reason, Applicants submit that claims 13 and 18 are patentable over *Chau* as well.

#### **The Combination of *Chau* in View of *Mihai* Does not Render Claim 6 Obvious**

Claims 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chau* in view of *Mihai et al.* (U.S. Publication 2005/0065817, hereinafter "*Mihai*"). Claim 6 depends from one of claim 1 and is, therefore, believed to be allowable for the reasons provided above. Accordingly, withdrawal of this rejection is respectfully requested.

## CONCLUSION

The Examiner errs in finding that:

1. Claims 1-5 and 7-20 are anticipated by *Chau*; and
2. Claim 6 is unpatentable over *Chau* in view of *Mihai*.

Withdrawal of the rejections and allowance of all claims is respectfully requested.

Respectfully submitted, and  
**S-signed pursuant to 37 CFR 1.4,**

/Randol W. Read, Reg. No. 43,876/

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